Serial No.: 09/988,899

Filed: November 19, 2001

Page : 2 of 15

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

- 1. (Currently amended) A plurality of polynucleotides encoding a Fab library, the library comprising a plurality of vectors wherein each vector of the plurality of vectors comprises:
  - a first cloning region and a second cloning region, wherein
    - each cloning region comprises at least one, for the vector unique, restriction enzyme cleavage site,
    - each cloning region being 5' flanked by a ribosome binding site and a signal sequence,
  - a polynucleotide encoding an anchor region, located 3' of the second cloning region,
- a member of a first plurality of variable polynucleotides, said plurality of variable polynucleotides encoding a first plurality of polypeptides, wherein the member of the first plurality of polypeptides encodes a polypeptide selected from the group consisting of a complete antibody variable region, a complete antibody variable region followed by a complete antibody constant region, a complete antibody variable region followed by a part of an antibody constant region, a part of an antibody variable region followed by a part of an antibody constant region, a part of an antibody variable region followed by a part of an antibody constant region or a part of an antibody variable region followed by a part of an antibody constant region;
- a member of a second plurality of variable polynucleotides, said plurality of variable polynucleotides encoding a second plurality of polypeptides, wherein the member of the second plurality is cloned into the second cloning region of the vector, and the member of the second plurality of polypeptides encodes a polypeptide selected from the group consisting of a complete antibody variable region, a complete antibody variable region followed by a complete antibody

Serial No.: 09/988,899

Filed: November 19, 2001

Page : 3 of 15

constant region, a complete antibody variable region followed by a part of an antibody constant region, a part of an antibody variable region followed by a complete antibody constant region or a part of an antibody variable region followed by a part of an antibody constant region;

the polypeptides of each of said first and second pluralities being selected from the group consisting of a complete antibody variable region, a complete antibody variable region followed by a complete antibody constant region, a complete antibody variable region followed by a part of an antibody constant region, a part of an antibody variable region followed by a complete antibody constant region or a part of an antibody variable region followed by a complete antibody constant region or a part of an antibody variable region followed by a part of an antibody constant region,

- the member of the first plurality of variable polynucleotides being located in the first cloning region,
- -the member of the second plurality of variable polynucleotides being located in the second cloning region, and
- a polynucleotide encoding a tag; wherein the plurality of vectors comprises the first plurality of variable polynucleotides and the second plurality of variable polynucleotides.
- 2. (Currently amended) The plurality of polynucleotides according to claim 1, wherein the first plurality of variable polynucleotides are  $V_L$  polynucleotides, and the second plurality of variable polynucleotides polynucleotides are  $V_H$  polynucleotides.
- 3. (Previously presented) The plurality of polynucleotides according to any one of the preceding claims, wherein the plurality of polynucleotides encode a Fab library of at least 10<sup>9</sup> different Fabs.
  - 4-10. (Cancelled).
  - 11. (Currently amended) A plurality of vectors, wherein each vector of the plurality of

Serial No.: 09/988,899

Filed: November 19, 2001

Page : 4 of 15

## vectors comprises comprising

- a first cloning region and a second cloning region, wherein

- each cloning region comprises at least one, for the vector unique, restriction enzyme cleavage site,
- each cloning region being 5' flanked by a ribosome binding site and a signal sequence,

-a polynucleotide encoding an anchor region, located 3' of the second cloning region,

-a member of a first plurality of variable polynucleotides, said plurality of variable polynucleotides encoding a first plurality of polypeptides, wherein the member of the first plurality of polypeptides encodes a polypeptide selected from the group consisting of a complete antibody variable region, a complete antibody variable region followed by a complete antibody constant region, a complete antibody variable region followed by a part of an antibody constant region, a part of an antibody variable region followed by a part of an antibody constant region, a part of an antibody variable region followed by a part of an antibody constant region or a part of an antibody variable region followed by a part of an antibody constant region;

-a member of a second plurality of variable polynucleotides, said plurality of variable polynucleotides encoding a second plurality of polypeptides, wherein the member of the second plurality is cloned into the second cloning region of the vector, and the member of the second plurality of polypeptides encodes a polypeptide selected from the group consisting of a complete antibody variable region, a complete antibody variable region followed by a complete antibody constant region, a complete antibody variable region followed by a part of an antibody constant region, a part of an antibody variable region followed by a complete antibody variable region followed by a complete antibody constant region or a part of an antibody variable region followed by a part of an antibody constant region;

the polypeptides of each of said first and second pluralities being selected from the group consisting of a complete antibody variable region, a complete antibody variable region followed by a complete antibody constant region, a complete antibody variable region followed by a part of an antibody constant region, a part of an antibody variable region, a part of an antibody variable region followed by a

Serial No.: 09/988,899

Filed: November 19, 2001

Page : 5 of 15

complete antibody constant region or a part of an antibody variable region followed by a part of an antibody constant region;

- the member of the first plurality of variable polynucleotides being located in the first cloning region,
- the member of the second plurality of variable polynucleotides being located in the second cloning region, and
- a polynucleotide encoding a tag.

  wherein the plurality of vectors comprises the first plurality of polynucleotides and the second plurality of variable polynucleotides.
- 12. (Currently amended) The <u>plurality of vectors</u> vector according to claim 11, wherein the first plurality of variable polynucleotides are  $V_L$  polynucleotides, and the second plurality of variable polynucleotides are  $V_H$  polynucleotides.
  - 13-14. (Cancelled).
- 15. (Previously presented) The plurality of polynucleotides according to claim 3, wherein the polynucleotides encode a Fab library of at least 10<sup>10</sup> different Fabs.
- 16. (Previously presented) The plurality of polynucleotides according to claim 15, wherein the polynucleotides encode a Fab library of at least  $3.7 \times 10^{10}$  different Fabs.